

## **REMARKS**

Careful consideration has been given to the Official Action of January 8, 2007 and reconsideration of the application is respectfully requested.

Claims 3, 5 and 6 are objected to by the Examiner under 37 CFR 1.75(c) as allegedly being in improper form.

Claims 3 and 4 are rejected by the Examiner under 35 USC 112, second paragraph, as allegedly being indefinite.

Claims 1 and 6 stand rejected by the Examiner under 35 USC 103(a) as being allegedly unpatentable over US Patent No. 4,118,201 (hereafter Yan) in view of US Patent No. 4,409,094 (hereafter Longwell).

Claims 2-5 stand rejected by the Examiner under 35 USC 103(a) as being allegedly unpatentable over Yan in view of Longwell, and further in view of US Patent No. 5,178,785 or US Patent No. 3,350,845 (hereafter McKinley), or US Patent No. 5,296,007 (hereafter Clough), or US Patent No. 4,704,134 (hereafter Meyer) respectively.

Claims 1-6 have been amended to overcome the Examiner's objections and to define more clearly the invention.

Claims 7-9 have been added to recite features of the three zones recited in claim 1.

Support for these claims can be found in the specification at page 4, lines 13-29.

The claims as now presented are distinguishable and nonobvious over the references cited by the Examiner, taken singly or in combination, as will be discussed hereafter.

The claimed invention is directed to a device for reduction of organic sulphur from high sulphur coal. The device includes a reactor inside a furnace, and includes three zones: a steam heating zone (450 - 500 degree C), a promoter zone for heating a promoter therein (950-1100 degree C), and a reaction zone for reacting the high sulphur coal with a steam (900 - 950 degree C).

In contrast, Yan does not disclose the three zones of the claimed invention as contended by the Examiner. Since the Examiner referred to the three zones of Yan, and since Fig. 1 of Yan does not show three zones, Applicants assume that the Examiner is referring to the three zones disclosed with reference to Fig. 2 of Yan. However, "the bottom zone", which the Examiner interpreted to be the same as the claimed steam heating zone, is not the same as the claimed steam heating zone and is not maintained at a temperature of about 900-1500 degree F (482-815 degree C) as alleged by the Examiner. Zone I (element 5) of Yan is the synthesis gas generating zone, which is maintained at about 1800 - 3000 degree F (982 - 1649 degree C) (see column 5, line 61 to column 6, line 17).

Yan provides a fluidized reaction zone (also desulfurization zone, Zone II, element 10) in which the coal introduced via conduit 8 is mixed with the synthesized gas. However,

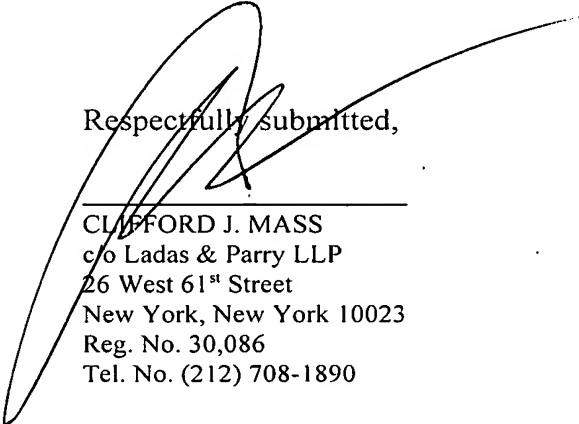
Yan does not teach or disclose a promoter zone as claimed in claim 1.

Longwell, McKinley, Clough, and Meyer were cited by the Examiner for disclosure of other features. However, none of these references discloses the three zones of claim 1, and cannot make up for the deficiencies of Yan. Inasmuch as none of the references cited by the Examiner teaches or suggests the claimed three zones of the reactor, their combination cannot, either.

Therefore, since none of the references cited by the Examiner discloses each and every feature of claim 1, the cited art cannot set forth even a *prima facie* case of obviousness for the invention as claimed (see MPEP 2143).

In view of the above action and comments, it is respectfully submitted that the application is in condition for allowance, and favorable reconsideration of the application as amended is earnestly solicited.

Respectfully submitted,



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